

REMARKS

This Amendment is in response to the Office Action mailed April 16, 2003. In the Office Action, the Examiner indicated that Claims 19-36 are pending, Claims 19-34, 36 are rejected and Claim 35 is allowable if rewritten in independent form. The Office Action was made FINAL.

This Amendment is prepared following guidelines published in the USPTO Revised Notice of "AMENDMENTS IN A REVISED FORMAT NOW PERMITTED" published in the Official Gazette on February 25, 2003.

With this Amendment, Claims 28 and 35 are amended, and Claims 19-36 are presented for reconsideration and allowance.

Claim Rejections - 35 USC § 102

The Examiner rejected Claims 19, 20, 28, 31-34 under 35 U.S.C. 102(e) as being anticipated by Baba ('162). The Examiner indicated that various features are described in connection with FIG. 4 of Baba, and in particular the Examiner indicated that Baba teaches a servo arrangement that adaptively generates an output responsive to a sensed position signal.

Baba ('162) does not disclose or suggest a servo arrangement that adaptively generates an output. Baba instead teaches conventional non-adaptive controllers.

As pointed out in the present disclosure at page 1, lines 19-20, an adaptive controller adapts its controller parameters in real time.

In Baba, each of the controller blocks shown has a single input and a single output which are coupled to process variables. There is no teaching in Baba of a controller block that has an additional input for receiving adaptation parameters that adapt the control function of an adaptive controller itself in real time.

As illustrated in FIG. 2 of the present disclosure, for example, an adaptive controller 202 has an additional input on

line 212 that receives adaptation parameters that adapt the control function of the adaptive controller 202 in real time.

Adaptively controlling, as taught in the present disclosure, in neither disclosed nor suggested by Baba. Withdrawal of the rejection under 35 USC 102 and reconsideration and allowance of Claims 19, 20, 28, 31-34 is therefore requested.

#### **Claim Rejections - 35 USC § 103**

The Examiner rejected Claims 21-24, 26, 27, 29, 30 and 36 under 35 U.S.C. 103(a) as being unpatentable over Baba in view of Clare et al. ('286). The Examiner rejected Claim 25 under 35 U.S.C. 103(a) as being unpatentable over Baba in view of Clare et al. ('286) as applied to claims 21-24, 26 and 36 above, and further in view of official notice of use of pulse width modulation.

As discussed above, Baba does not teach or suggest an adaptively controlling.

The Examiner indicated that Clare et al. teaches "an adaptive system generating adaptive parameter data according to an update equation."

Clare et al., however, does not teach or suggest an adaptive system as presently claimed in amended Claims 21-26, 27, 29, 30 and 36. Each of the Claims 21-26, 27, 29, 30 and 36, includes a limitation to adaptively controlling. As pointed out above in connection with Baba, adaptive controller circuits have a process variable input, a process variable output and have an additional input for receiving adaptation parameters. Clare et al. shows only controllers that have a single input and a single output. Clare et al. does not teach adaptively controlling as presently claimed in Claims 21-26, 27, 29, 30 and 36.

Neither Baba nor Clare et al., taken singly or in combination, teach or suggest an adaptively controlling as claimed in Claims 21-26, 27, 29, 30 and 36. The additional

features recited in dependent claims are also believed to be non-obvious in combination with the adaptive controlling feature. Reconsideration and allowance of Claims 21-26, 27,29, 30 and 36 is therefore requested.

**Allowable Subject Matter**

The Examiner indicated Claim 35 to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With this Amendment, Claim 35 is rewritten as suggested by the Examiner. Withdrawal of the objection and allowance of Claim 35 is therefore requested.

The application appears to be in condition for allowance and favorable action is requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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